

Joint C4ISR Decision Support Center

DSC Readiness Review

CAPT Steve Soules

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Joint C4ISR Decision Support Center

Purpose

Provide an update on the stand up of the Joint C4ISR Decision Support Center

- What is the status of the DSC?
- What studies will be conducted?
- What is the status of staffing actions?
- How will the money be spent?
- What are the major milestones?

This briefing is intended to provide senior leadership with a status report on the activities related to the stand up of the DSC.

It will summarize:

- The status of all the DSC activities currently underway
- The three studies that will be done in FY97
- The status of filling out the technical staff of the DSC

It will provide summary and detailed information about where money will be spent.

It will lay out the action milestones for the near and far term in FY97.

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DSC Current Status

- **J-6 Spaces**
 - TS Access
- **STS III Study underway**
 - DSC/J6 Joint Analytical Project
 - On track for Jan 97 report out
- **SLATE Development underway**
- **Staff in Place**
 - Study Team #1 Staff
 - DSC Strategic Plan - 2 Contractors
 - DSC Implementation Mgmt - Contractor
 - JIER DB Mgr - Contractor
 - SLATE DB Mgr - Contractor
- **Equipment**
 - JIER Data Base workstation
 - SLATE Station #1 (Sun)

The DSC is now conducting business in two spaces, while the new CISA office is built out: J-6 (this slide) & CISA HQ (next slide).

In the J-6 space the Sensor-to-Shooter III study is underway, with the study team assembled prior to transferring the study to the DSC.

We are populating a demonstration data system in SLATE to evaluate it as a way to organize C4ISR requirements and capabilities.

We have a number of study team members in this space, as well as contract support.

Finally, we have the initial workstations for doing the SLATE data base, and the Joint Information Exchange Requirements Data Base.

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DSC Current Status

- **CISA Spaces**
 - SI/TK/B Access
- **Projects**
 - C4ISR/Weapon Trade-off Study Plan
 - C4ISR Studies Data Base Plan
 - C4ISR Models & Simulation DB Plan
- **Staff in Place**
 - DSC Director - O-6
 - Chief Analyst - GS-15
 - Chief of Analytic Support - GS-15
- **Equipment**
 - SLATE Station #2 (Sun) on order
- **Funding**
 - \$5.2M Q1 funds available
 - \$550K obligated for STS III study support
 - \$100K obligated for SLATE development

In the CISA HQ space, we have three senior members of the DSC in place, as listed here.

We have started the study plan development for the next major study, on C4ISR/Weapons Tradeoffs, as well as on the first two major analytic technical support efforts.

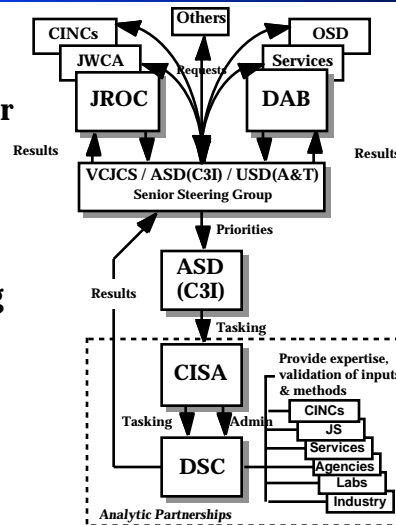
Equipment is being acquired to install SLATE in this space, and to provide a connection to the J-6 system over SIPRNET.

First quarter funding for the DSC has been released. Some of this money has already been obligated to support study and technical support projects.

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DSC Tasking Process

- Organizations defined study tasks and submitted summary for consideration
- SSG prioritized study requests
- SSG validating requests, passing on to CISA / DSC for action
- DSC acting on study request from SSG as directed by CISA



This chart revisits the general process of having study efforts approved by the SSG, which defines priorities for DSC activities. We conducted this process over the last two months.

Suggestions for study topics were submitted to the DSC. We received 13 proposals, of which 3 were provided by the SSG.

The DSC identified the three projects that best fit its charter, budget and schedule for FY97, and submitted these to the SSG for approval.

The DSC has assembled a study team on STS III and will use JWCA-based teams, to provide the necessary technical expertise for each of the studies.

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FY97 Analytic Projects

- **Joint Link Analysis (Sensor-to-Shooter III)***
 - Investments in joint, interoperable links to support the warfighter
- **C4ISR / Weapon Trade-Off Analysis (CMA/DAWMS)**
 - Trade-offs in investments in weapon systems and C4ISR systems for selected combat mission areas
- **Theater & Tactical Communication Trade-Off Analysis Support**
 - Investments for a combination of UAVs and SATCOM systems as theater and tactical communications link

***Study Team #1 Participants:**

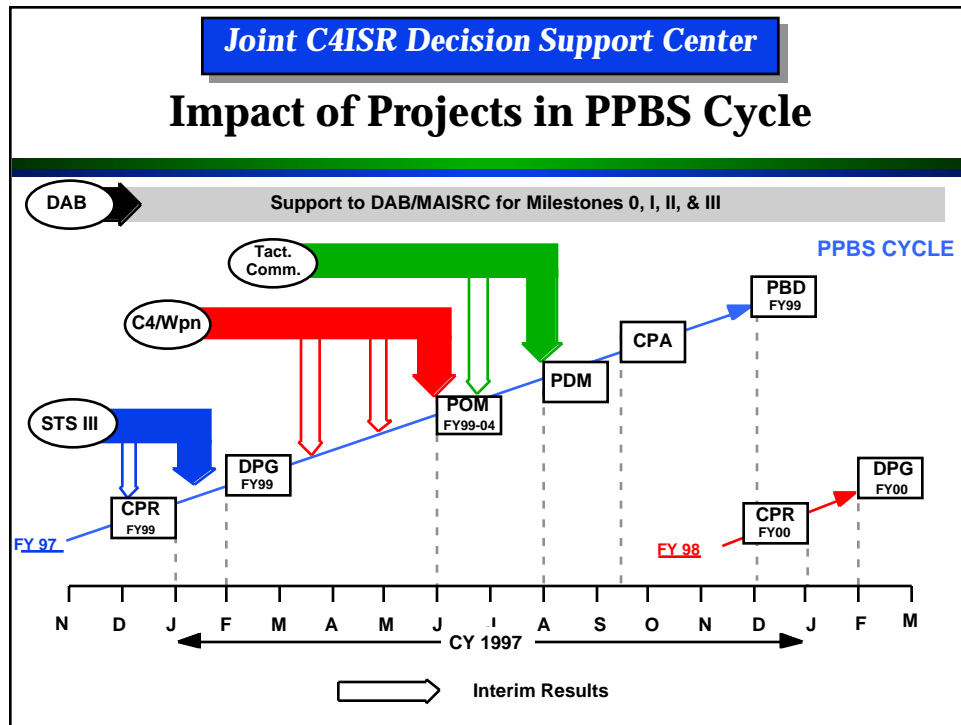
USA, USAF, USN, USMC, CINCs, DIA, DARO, DSPO, NSA, DISA, CISA, BMDO, EA-TAD, JCIDO, NIMA, CIA, NRO, JS (J2, J3, J6, J8)

This slide summarizes the three study projects selected by the SSG, which will be conducted in FY97.

The STS III study has been transferred to the DSC from J-6, and will continue until Feb 97. It will identify joint comm links to support a variety of mission areas, to enable requirements planners to recommend investment options.

The C4ISR/Weapon Tradeoff study will identify where improvements in C4ISR systems can offset increases in weapon force structure and mix, while maintaining deep attack mission performance. A team is being formed now, and a study plan is being developed.

The Tactical Communications study will examine the tradeoffs between satellite and airborne comm systems, to provide information on the value of different investment options.



This chart shows the impact we expect DSC studies to have on decisions in the requirements and PPBS processes for FY97.

The STS III study will provide inputs to the Joint Staff for the preparation of the CPR and to the DPG for the FY99 planning cycle, with an expected deliverable date of Feb 97.

The C4I/Weapon Tradeoff study will be completed in June, to help Service and OSD planners prepare and respond to POM issues.

The Tactical Comms study is expected to be complete in Aug 97; it will provide interim results for the POM, and final results as inputs to the PDM and CPA.

Interim results from each study will be provided as they become available.

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DSC Budget

Analytical /Modeling/Simulation Support	\$5.150 M
Technical Analytic Support	\$2.208 M
Operating Expenses	\$1.737 M
Civilian Payroll	\$.905 M
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Total	\$10.000 M

- Program Budget Decision 872 provided manpower and funds to establish the C4ISR Decision Support Center starting in FY97
- Allocate resources by a 2/3 : 1/3 rule for first year
 - 2/3 to C4ISR studies
 - 1/3 to creation of technical analytic support

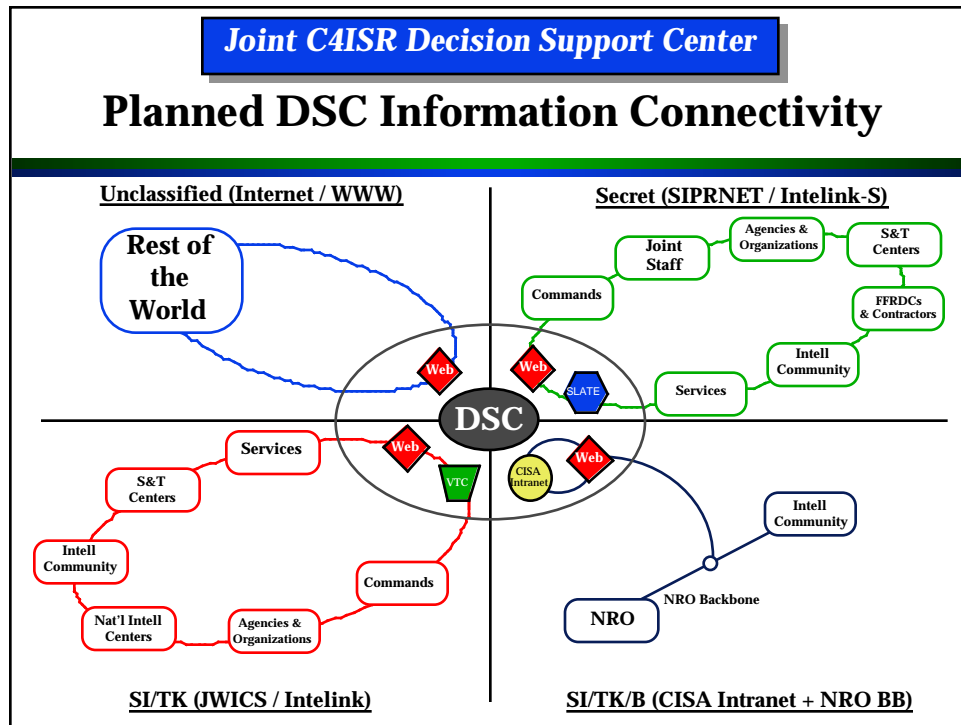
This chart provides a summary of how the DSC budget breaks down into four main categories.

- **The largest item applies to funds for contracts or resources provided to other government organizations for study support, including modeling and simulation.**
- **The next largest item covers funds for support on the data bases, libraries and tools that will be used to assist the study teams.**

The operating expenses cover the first year costs of getting the DSC underway, and moved into a new facility. Later year expenses will drop by about \$1M, once the initial costs are covered, to an expected operating cost of around \$800K

Finally, the salary item covers the personnel costs for the staff described on the previous chart. This reflects a downgrade from the initially proposed staff, as directed by DISA

In general, we are sticking to the 1/3 infrastructure, 2/3 product strategy that we briefed in the IPR in July



If the DSC is truly going to fulfill the role and mission of being a catalyst for the design, development, and fielding of the C4ISR System of Systems, it must maintain information connectivity to the rest of the defense and intelligence communities. This will be accomplished through several data networks, based on the level of data classification.

Data services provided include:

- Web-style data bases
- Direct access to SLATE data bases
- Video teleconferencing
- E-mail

Data provided by other organizations will cover information on systems, operations, costs, etc.

Again, 1/3 of the DSC resources will be devoted to this effort.

We are seeking joint analytical partnerships to ensure that this connectivity satisfies DSC and external requirements.

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Modeling & Simulation Tools

No Single Model Addresses all the Issues Relevant to C4ISR

- **Joint Link Analysis (STS III)**
 - EADSIM (Teledyne-Brown)
 - Systems Dynamics Model (Booz-Allen)
 - ACPT
 - C3ISIM
 - COMPASS
- **Tact. Comm. Trade-Off Analysis**
 - MAST
 - STRATC2AM
 - ISRSIM
 - IRIS
 - GAP
 - LIGHTNING
- **C4ISR/Weapons Mix (CMA) Trade-Off Analysis**
 - EADSIM
 - TACWAR
 - THUNDER
 - ITEM
 - VIC (C2FAM)
 - C3ISIM
 - ISRSIM
 - NAPA
 - LIGHTNING
- **Resource Allocation**
 - ITEM
 - THUNDER
 - SLADE
 - TAC BRAWLER

Models and simulations will be key tools in DSC analytic studies. However, we will not maintain a large collection of models in-house. Instead, we will farm out modeling support, as required.

No single model yet addresses all of the key issues related to C4ISR, so multiple models may be required.

Each project will use models appropriate to the area of study. The models listed are examples of those we are considering.

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DSC IPR Briefings

✓ ASD(C3I)	12 July	✓ J-2 (Deputy)	22 Aug
✓ CINCs VTC	16 July	✓ ADCI (now DJS)	30 Aug
✓ J-8	17 July	✓ OD PA&E	20 Sept
✓ DIA	17 July	✓ JRB	4 Oct
✓ USD(A&T)	18 July	✓ CJCS	8 Oct
✓ VCJCS	19 July	✓ J-6	15 Oct
✓ DISA	24 July	• NRO	TBA
✓ J-2 (Copy Provided)	25 July	• NSA	TBA
✓ DARO	26 July	• NIMA	TBA

The plan for standing up and operating the DSC has been briefed to all the organizations shown here with check marks.

There has been widespread concurrence with this plan and the mission of the DSC, and much interest in the anticipated products of the Center.

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Milestones Completed / In Progress

- **Staffing**
 - Two Senior Analysts on board
 - Four Analysts in process
- **Study #1 - STS III**
 - Study Team executing analysis
- **Study #2 - C4I/Wpn Trade-Offs**
 - Study Plan under development
- **C4ISR Studies Data Base**
 - Plan under development
- **C4ISR M&S Library**
 - Plan under development
- **SLATE Technical Data Base**
 - Populating demonstration system

Progress in this first month of operation has been very good. In short, we are off to a running start!

Half of the staff has been put in place or identified and in process of being transferred.

The STS III study is well underway.

Plans for the second major study and data base development projects are being created.

The SLATE data base is being filled out. It has been demonstrated, and looks very promising.

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Milestones Remaining

- **Study #2 - C4I/Wpn Trade-Offs**
 - Assemble study team and execute
- **Study #3 - Tact Comm Trade-Offs**
 - Develop study plan, assemble team, and execute
- **Staffing**
 - Identify and hire 4 more Analysts
- **C4ISR Studies Data Base**
 - Identify overlapping study efforts
- **C4ISR Models & Simulation Library**
 - Execute library plan
- **C4ISR Programs Data Base**
 - Develop plan and execute
- **Build out new facility**

Over the next few months, additional milestones must be addressed.

The C4/Weapon Tradeoff Study must begin NLT Dec 96 to meet the June 97 deadline.

Additional staff must be transferred on board to begin the third project on time. We cannot accept any delays in manning the staff.

Development plans for other data base projects must be created.

The new CISA facility must be built out, in order to begin the development of the permanent infrastructure.